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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/770,562	01/26/2001	William J. Curatolo	PC9674AJTJ	8513

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PFIZER INC.
PATENT DEPARTMENT, MS8260-1611
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EXAMINER	
FUBARA, BLESSING M	

ART UNIT	PAPER NUMBER
1618	

NOTIFICATION DATE	DELIVERY MODE
02/06/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

~IPGSGro@pfizer.com

Office Action Summary	Application No.	Applicant(s)	
	09/770,562	CURATOLO ET AL.	
	Examiner	Art Unit	
	BLESSING M. FUBARA	1618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11/10/08*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4,15,17,22,23,26,28-38,49-51 and 53-56* is/are pending in the application.

4a) Of the above claim(s) *28-35 and 38* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4,15,17,22,23,26,36,37,49-51 and 53-56* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *5/5/08, 5/9/08 & 5/12/08*.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

The examiner acknowledges receipt of request for extension of time, amendment and remarks, all filed 11/10/2008. The examiner also acknowledges receipt of IDS filed 5/12/08, 5/9/08 and 5/5/08. No claim is amended. Claims 1, 4, 15, 17, 22, 23, 26, 28-38, 49-51 and 53-56 are pending.

Review of the prior art filed 5/12/08, 5/9/08 and 5/5/08 and further consideration of the claims give rise to the following rejections.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1, 4, 15, 17, 22, 49 and 53-55 are rejected under 35 U.S.C. 102(b) as being anticipated by Miyajima et al. (EP 0 344 603).

3. Miyajima describes formulating NZ-105, a dihydropyridine phosphonic acid derivative, drug that is poorly soluble in water (abstract; page 2, lines 14-35; page 3, lines 6-9), by dissolving NZ-105 and HPMCAS in an organic solvent and removing the solvent by vacuum drying, spray drying or freeze drying to yield compositions that are remarkably enhanced bioavailability (page 3, lines 16-20; page 4, lines 56-58) with solid dispersions resulting from spray-drying. 1-7 parts by weight of HPMCAS are used per 1 part by weight of NZ-105. For

claim 1, parts (a) and (b) are the properties of the dosage form. Claim 1 recites spray dried dispersion which in claims 4 and 17 is amorphous when undispersed and the recitation in claims 4 and 17 is also directed to the properties of the dosage form. Claim 15 is also met because the AUC is a property of the dosage form because the spray dried dosage form would be capable of showing the AUC. The ratio of 1-7 parts of the HPMCAS to 1 part of the drug NZ-105 intersect points within the range of 1-20 parts of HMPCAS to 1 part drug of the claims with emphasis on claims 1, 15 and 55. For claim 22, that recites what would happen to the composition or the behavior of the composition in MFD, it is noted that the dosage form of Miyajima is capable of exhibiting the concentration parameters recited in claim 22 since the composition of Miyajima and the claims contain HPMC and an active agent that is poorly soluble. Claims 49, 53 and 54 recite the properties of the composition so that the composition of Miyajima meets the claims.

4. Claims 1, 4, 15, 17, 22, 49 and 53-55 are rejected under 35 U.S.C. 102(a) as being anticipated by Kigoshi et al. (EP 0 784 974).

5. Kigoshi describes solid dispersions containing xanthine derivatives and polymer (title; abstract; page 2, lines 21, 22, 44, 45); the xanthine derivatives are slightly soluble in water meeting the sparingly water soluble drug of the claims; the polymer can be a cellulose derivative (page 3, line 58) and hydroxypropylmethyl cellulose acetate succinate (HPMCAS) is one the derivatives named (page 4, line 8) meeting the requirements of the claims. One of the processes of removing the solvent for the formation of the solid dispersion is by spray-dry granulator (page 4, line 38) and the resulting granules/particles are isolated (page 4, lines 49, 50). The ratio of the xanthine derivative compound I to the polymer ranges from 3:1 to 1:5 (page 4, lines 12, 13) with the ratio of 1:5 intersecting points within the recited ratio of 1:20 of the claims with

emphasis n claims 1, 15 and 55. Claim 1 recites spray dried dispersion which in claims 4 and 17 is amorphous when undispersed and the recitation in claims 4 and 17 is also directed to the properties of the dosage form. Claim 15 is also met because the AUC is a property of the dosage form because the spray dried dosage form would be capable of showing the AUC. The ratio of 1:5 parts by weight of xanthine derivative compound to HPMCAS intersect points within the range of 1-20 parts of HMPCAS to 1 part drug of the claims. For claim 22, that recites what would happen to the composition or the behavior of the composition in MFD, it is noted that the dosage form of the Kigoshi is capable of exhibiting the concentration parameters recited in claim 22 since the composition of Kigoshi and the claims contain HPMC and an active agent that is poorly soluble. Claims 49, 53 and 54 recite the properties of the composition so that the composition of Kigoshi meets the claims.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4, 15, 17, 22, 23, 26, 36, 37, 49-51 and 53-56 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Obara et al. ("Influence of processing variables on the properties of free films prepared from aqueous polymeric dispersions by a spray technique," in

International Journal of Pharmaceutics 126 (1995) 1-10) in view of Akiyama et al. (US 5,576,025) for reasons of record and reiterated herein below.

Obara discloses that pharmaceutical dosage forms spray dried dispersions using hydroxypropylmethyl cellulose acetate succinate (AQOAT = HPMCAS) produced particles with a mean particle size of 5 μm (abstract, para. 1). Obara does not mention any specific drugs. But poorly water soluble antipsychotic drugs are known to be formulated into coated granules by spray coating with polymers such as HPMCAS (Akiyama at column 6, lines 14 and 26; column 9, line 13; column 11, line 60; column 12, line 52; column 13, lines 39-44).

Claim 1(a) and (b) are the properties of the dosage form. Claim 1 recites spray dried dispersion which in claim 4 is amorphous when undispersed and the recitation in claim 4 is also directed to the properties of the dosage form. Claim 15 is also met because the AUC is a property of the dosage form because the spray dried dosage form would be capable of showing the AUC. The particles sizes of 5 or 10 μm is less than 100 μm such that particle size in claims 23 and 26 is rendered obvious by the prior art except there is a factual evidence that the less than 100 μm provides unexpected result while also noting that any particle size that is less than 100 μm would meet the limitation of less than 100 μm. The dosage form of the prior art is capable of exhibiting the concentration parameters recited in claim 22 since the composition of the prior art and the claims contain HPMC and an active agent that is poorly soluble. Regarding claim 50, the prior art does not say that the product is free of any solvent. Because both the drugs of the prior art and the claimed invention are poorly water soluble, and the drugs such as chlorpromazine disclosed in the prior art meets the requirements of claim 36, then the solubility parameter recited in claim 53 would be inherent to the dose of the prior art. Regarding claim 37,

since the prior art spray coats antipsychotic drug with HPMCAS, it would be reasonably expected that another antipsychotic drug such as claimed in claim 37 would also be successfully coated. However, the prior art does not teach the ratio of the drug to polymer. But, taking the generic teachings of the prior art, one having ordinary skill in the art at the time the invention was made would have good reason to use specific amounts drug and polymer in a defined drug/polymer ration that would lead to the anticipated success of spray coated/dried dosage forms.

Response to Arguments

7. Applicant's arguments filed 11/10/08 have been fully considered but they are not persuasive.

8. Applicant argues that Akiyama teaches a solid matrix comprising viscogenic agent and active agent and that HPMCAS is not viscogenic and that at best when the matrix contains HPMCAS, the matrix particles are also coated with a viscogenic agent such that applicant argues that, the Akiyama spray dried coated matrix contains one more essential ingredient beyond the drug and HPMCAS. While the examiner agrees with the applicant that the matrix of Akiyama containing the drug and the HPMCAS may be coated with viscogenic agent, and while claims 1 and 15 say that the dispersion consists essentially of, the examiner notes that claims 1 and 15 use the open comprising language to describe what is contained in the compositions (see line 1 of both claims 1 and 15) and the comprising language is open and does not exclude a coating composition. Secondly, the coating composition itself may contain active agent and HPMCAS and viscogenic agent, and here again, the comprising language of the claims is open.

9. Applicant further argues that there is no motivation to combine Obara and Akiyama because there is no reasonable expectation that a spray dried dispersion would result form the combination. The examiner disagrees. i) Claims 1 and 15 are directed to composition of matter and the primary reference of Obara teaches spray dried composition comprising a drug and HPMCAS. Akiyama teaches spray dried composition comprising poorly water soluble active agent and HPMCAS. Akiyama provides a teaching for formulating dispersions of specific poorly water soluble drug and HPMCAS. There is thus reasonable expectation that spray dried dispersions of sparingly water soluble drugs and HPMCAS can be successfully formulated by spray drying by combining the drug and the HPMCAS. Applicant's opinion that spray dried dispersion would not result form the combination of Obara and Akiyama is not persuasive in the absence of factual evidence that the sparingly water soluble antipsychotic drugs of Akiyama cannot not spray dried when combined with HPMCAS (see column 11, lines 20-25 of Akiyama where granules are obtained by spraying).

10. Applicant further argues that neither Obara nor Akiyama discloses drug polymer ratio of from 1:0.4 to 1:20. The examiner agrees with the applicant neither Obara nor Akiyama teaches the drug polymer ratio of the claims, but the examiner notes that the rejection is not an anticipation rejection and the artisan has the technical skills of using specific amounts of drug and polymer that would provide the expected sustained/controlled delivery device comprising dispersion of drug and HPMCAS.

11. Claims 1, 15, 23, 26, 50 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyajima et al. (EP 0 344 603) or Kigoshi et al. (EP 0 784 974).

12. Miyajima: Miyajima is described above as anticipating claims 1 and 15. For claims 50 and 51, since the formulation of Miyajima and that of the instant claims are spray dried, it would be reasonable to expect that the residual solvent in the formulation of Miyajima and the composition of the claims would be the same except there is factual evidence that it's not. Although, Miyajima's spray dried formulations are granules, Miyajima does not specifically teach the particle size of claims 23 and 26. However, a person of ordinary skill in the art has the ordinary capabilities to determine the size of the resultant granules/particles. In the absence of factual evidence, particles having sizes of less than 100 μm are not inventive over the granules/particles of Miyajima.

13. Kigoshi: Kigoshi has been described above as anticipating claims 1 and 15. For claims 50 and 51, since the formulation of Kigoshi and that of the instant claims are spray dried, it would be reasonable to expect that the residual solvent in the formulation of Kigoshi and the composition of the claims would be the same except there is factual evidence that it's not. Although, Kigoshi's spray dried formulations are granules, Kigoshi does not specifically teach the particle size of claims 23 and 26. However, a person of ordinary skill in the art has the ordinary capabilities to determine the size of the resultant granules/particles. In the absence of factual evidence, particles having sizes of less than 100 μm are not inventive over the granules/particles of Kigoshi.

14. No claim is allowed.

15. Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on 5/5/08, 5/9/08 and 5/12/08 prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See

MPEP § 609.04(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BLESSING M. FUBARA whose telephone number is (571)272-0594. The examiner can normally be reached on 7 a.m. to 5:30 p.m. (Monday to Thursday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Hartley can be reached on (571) 272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Michael G. Hartley/
Supervisory Patent Examiner, Art Unit 1618

/Blessing M. Fubara/
Examiner, Art Unit 1618